

switched to the caller identifying signal display, and further to the reception time signal display, in sequence. Further, in the digital display unit 20, the time signal display is switched to the message (e.g., a telephone number) display.

(4) FOURTH EMBODIMENT

FIG. 4 is a block diagram showing a fourth embodiment of the electronic watch provided with a pager according to the present invention.

In FIG. 4, the reception time storing circuit 34 for storing the reception time in response to the match signal of the call number comparing circuit 4 and the pager display switching circuit 35 are additional provided for the second embodiment shown in FIG. 2. Further, a reception time signal and the output signal of the caller identifying signal storing circuit 8 are inputted to the pager display switching circuit 35, and the output signal of the pager display switching circuit 35 is inputted to the pager information analog display unit 33.

When pager information is received and the call number matches one of the stored call numbers, the call number comparing circuit 4 outputs the match signal to the message storing circuit 7 and the caller identifying signal storing circuit 8 to store the call identifying signal and the message such as a telephone number, together with the reception time.

A plurality of caller identifying signals and a plurality of reception time signals both stored in the past are inputted to the pager display switching circuit 35. A plurality of the message signals stored in the past are inputted to the digital display switching circuit 17. These past information data are selected in sequence by the external inputting element 11. In the pager information analog display unit 33, the caller identifying signal display is switched to the reception time signal display. Further, in the digital display unit 20, the time signal display is switched to the message (e.g., a telephone number) display.

As described above, in the present invention, in response to an output of the external inputting element, the display switching circuit selectively switches the time signal outputted by the time measuring circuit to the received information signal outputted by the received information storing circuit or vice versa. Further, the output signals of the display switching circuit are inputted both to the analog display unit and the digital display unit, respectively. Accordingly, there exists such an effect as to provide a combination watch excellent from the standpoints of design and fashion, which can display both the caller identification number and the message (e.g., a telephone number).

In addition, the same effect as above can be obtained by inputting the output signal of the received information storing circuit to the pager information analog display unit for displaying only the received information, without use of any display switching circuit.

What is claimed is:

1. An electronic watch provided with a pager comprising:
 - high frequency receiving means for receiving pager signals such as an individual call signal;
 - signal demodulating means for demodulating the received pager signals to digital signals;
 - received call signal storing means for storing the call signal;
 - message storing means for storing a callers' message signal such as a telephone number;

caller identifying signal storing means for storing a callers' identifying signal;
 call number storing means for storing a plurality of previously given individual call number signals;
 call number comparing means for comparing the received individual call signal with the previously given individual call number signals;
 alarming means for generating an alarm when both compared results which compared by said call number comparing means match each other;
 time measuring means for measuring time;
 external inputting means for selecting information to be displayed;
 stored signal selecting means responsive to an output signal of said external inputting means, for outputting the stored signals to said caller identifying signal storing means and said message storing means;
 analog display switching means responsive to the output signal of said external inputting means, for switching an output signal of said time measuring means and an output signal of said caller identifying signal storing means;
 hand position converting means for converting an output signal of said analog display switching means to hand position data for display;
 current hand position storing means for storing current hand position data now displayed;
 hand stroke calculating means for calculating a stroke of a hand to be displayed on the basis of an output signal of said hand position converting means and an output signal of said current hand position storing means;
 motor pulse generating means for generating a motor driving pulse on the basis of an output signal of said hand stroke calculating means;
 motor driving means for driving a motor on the basis of an output signal of said motor pulse generating means;
 digital display switching means responsive of the output signal of said external inputting means, for switching the output signal of said time measuring means and an output signal of said message storing means;
 display element signal generating means for generating a display element driving signal on the basis of an output signal of said digital display switching means; and
 a display element for displaying a digital display on the basis of an output signal of said display element driving signal generating means.

2. An electronic watch provided with a pager comprising:

- high frequency receiving means for receiving pager signals such as an individual call signal;
- signal demodulating means for demodulating the received pager signals to digital signals;
- received call signal storing means for storing the call signal;
- message storing means for storing a callers' message signal such as a telephone number;
- caller identifying signal storing means for storing a callers' identifying signal;
- call number storing means for storing a plurality of previously given individual call number signals;
- call number comparing means for comparing the received individual call signal with the previously given individual call number signals;

alarming means for generating an alarm when both compared results which compared by said call number comparing means match each other;
 time measuring means for measuring time;
 external inputting means for selecting information to be displayed;
 stored signal selecting means responsive to an output signal of said external inputting means, for outputting the stored signals to said caller identifying signal storing means and said message storing means;
 hand position converting means for converting an output signal of said time measuring means to hand position data for display;
 current hand position storing means for storing current hand position data now displayed;
 hand stroke calculating means for calculating a stroke of a hand to be displayed on the basis of an output signal of said hand position converting means and an output signal of said current hand position storing means;
 motor pulse generating means for generating a motor driving pulse on the basis of an output signal of said hand stroke calculating means;
 motor driving means for driving a motor on the basis of an output signal of said motor pulse generating means;
 pager hand position converting means for converting an output signal of said caller identifying signal storing means to pager hand position data for display;
 current pager hand position storing means for storing current pager hand position data now displayed;
 pager hand stroke calculating means for calculating a stroke of a pager hand to be displayed on the basis of an output signal of said pager hand position converting means and an output signal of said current pager hand position storing means;
 pager motor pulse generating means for generating a pager motor driving pulse on the basis of an output signal of said pager hand stroke calculating means;
 pager motor driving means for driving a pager motor on the basis of an output signal of said pager motor pulse forming means;
 digital display switching means responsive to an output signal of said external inputting means, for switching the output signal of said time measuring means and an output signal of said message storing means of said received information storing means;
 display element signal generating means for generating a display element driving signal on the basis of an output signal of said digital display switching means; and
 a display element for displaying a digital display on the basis of an output signal of said display element driving signal generating means.

3. An electronic watch provided with a pager comprising:

high frequency receiving means for receiving pager signals such as an individual call signal;
 signal demodulating means for demodulating the received pager signals to digital signals;
 received call signal storing means for storing the call signal,
 message storing means for storing a callers' message signal such as a telephone number;
 caller identifying signal storing means for storing a callers' identifying signal;

call number storing means for storing a plurality of previously given individual call number signals;
 call number comparing means for comparing the received individual call signal with the previously given individual call number signals;
 alarming means for generating an alarm when both compared results which compared by said call number comparing means match each other;
 time measuring means for measuring time;
 external inputting means for selecting information to be displayed;
 stored signal selecting means responsive to an output signal of said external inputting means, for selecting a stored signal thereof;
 reception time storing means for storing a reception time on the basis of an output signal of said time measuring means, an output signal of said call number comparing means and an output signal of said storing means;
 analog display switching means responsive to the output signal of said external inputting means, for switching an output signal of said time measuring means, an output signal of said reception time storing means, and an output signal of said caller identifying signal storing means;
 hand position converting means for converting an output signal of said analog display switching means to hand position data for display;
 current hand position storing means for storing current hand position data now displayed;
 hand stroke calculating means for calculating a stroke of a hand to be displayed on the basis of an output signal of said hand position converting means and an output signal of said current hand position storing means;
 motor pulse generating means for generating a motor driving pulse on the basis of an output signal of said hand stroke calculating means;
 motor driving means for driving a motor on the basis of an output signal of said motor pulse generating means;
 digital display switching means responsive to the output signal of said external inputting means, for switching the output signal of said time measuring means and an output signal of said message storing means of said received information storing means;
 display element signal generating means for generating a display element driving signal on the basis of an output signal of said digital display switching means; and
 a display element for displaying a digital display on the basis of an output signal of said display element driving signal generating means.

4. An electronic watch provided with a pager comprising:

high frequency receiving means for receiving pager signals such as an individual call signal;
 signal demodulating means for demodulating the received pager signals to digital signals;
 received call signal storing means for storing the call signal;
 message storing means for storing a callers' message signal such as a telephone number;
 caller identifying signal storing means for storing a callers' identifying signal;
 call number storing means for storing a plurality of previously given individual call number signals;

11

call number comparing means for comparing the received individual call signal with the previously given individual call number signals;
alarming means for generating an alarm when both compared results which, compared by said call number comparing means match each other;
time measuring means for measuring time;
external inputting means for selecting information to be displayed;
stored signal selecting means responsive to an output signal of said external inputting means, for selecting a stored signal thereof;
reception time storing means for storing a reception time on the basis of an output signal of said time measuring means, an output signal of said call number comparing means and an output signal of said storing means;
pager display switching means responsive to an output signal of said external inputting means, for switching an output signal of said reception time storing means and an output signal of said caller identifying signal storing means;
hand position converting means for converting an output signal of said time measuring means to hand position data for display;
current hand position storing means for storing current hand position data now displayed;
hand stroke calculating means for calculating a stroke of a hand to be displayed on the basis of an output signal of said hand position converting means and an output signal of said current hand position storing means;

motor pulse generating means for generating a motor driving pulse on the basis of an output signal of said hand stroke calculating means;

motor driving means for driving a motor on the basis of an output signal of said motor pulse generating means;

pager hand position converting means for converting an output signal of said pager display switching means to pager hand position data for display;

current pager hand position storing means for storing current pager hand position data now displayed;

pager hand stroke calculating means for calculating a stroke of a pager hand to be displayed on the basis of an output signal of said pager hand position converting means and an output signal of said current pager hand position storing means;

pager motor pulse generating means for generating a pager motor driving pulse on the basis of an output signal of said pager hand stroke calculating means;

pager motor driving means for driving a pager motor on the basis of an output signal of said pager motor pulse forming means;

digital display switching means responsive to the output signal of said external inputting means, for switching the output signal of said time measuring means and an output signal of said message storing means;

display element signal generating means for generating a display element driving signal on the basis of an output signal of said digital display switching means; and

a display element for displaying a digital display on the basis of an output signal of said display element driving signal generating means.

* * * * *

Sub 91

5. A timepiece including a time keeper in order to display at least hours and minutes by means of hands surmounting a dial surrounded by a bezel, a receiver capable of receiving radio broadcast messages for seeking persons, reception being triggered by the composition on a telephone handset of one of at least two predetermined and distinctive calling numbers, a memory for storing said calls, an acoustic transducer for signalling at least the arrival of a message and a control arrangement including at least one stem fitted into a crown adapted to be manually actuated, and wherein at least the calling numbers are inscribed on the dial or the bezel in plain language or in coded form, means being actuated so that at least upon reception of a message such is stored in the memory and at least one hand ceases its time indicating function in order to come to show the calling number emitting the message.

6. A timepiece including a time keeper in order to display at least hours and minutes by means of hands surmounting a dial surrounded by a bezel, a receiver capable of receiving radio broadcast messages for seeking persons, reception being triggered by the composition on a telephone handset of one of at least two predetermined and distinctive calling numbers, a memory for storing said calls, an acoustic transducer for signalling at least the arrival of a message and a control arrangement wherein at least the calling numbers are inscribed on the dial or the bezel in plain language or in coded form, means being actuated so that at least upon reception of a message such is stored in the memory and at least one hand ceases its time indicating function in order to come to show the calling number emitting the message.

Add
D1